Jarir Aktaa

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2821782/publications.pdf

Version: 2024-02-01

168 papers	3,945 citations	126907 33 h-index	149698 56 g-index
169 all docs	169 docs citations	169 times ranked	2377 citing authors

#	Article	IF	Citations
1	Recent progress in research on tungsten materials for nuclear fusion applications in Europe. Journal of Nuclear Materials, 2013, 432, 482-500.	2.7	610
2	Development of advanced high heat flux and plasma-facing materials. Nuclear Fusion, 2017, 57, 092007.	3.5	189
3	Assessment of TBC systems failure mechanisms using a fracture mechanics approach. Acta Materialia, 2005, 53, 4399-4413.	7.9	158
4	Numerical investigation of residual stress fields and crack behavior in TBC systems. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 333, 351-360.	5.6	98
5	Mechanical properties and TEM examination of RAFM steels irradiated up to 70dpa in BOR-60. Journal of Nuclear Materials, 2011, 417, 93-98.	2.7	92
6	Assessment of neutron irradiation effects on RAFM steels. Fusion Engineering and Design, 2013, 88, 118-128.	1.9	89
7	Investigation of tungsten/EUROFER97 diffusion bonding using Nb interlayer. Fusion Engineering and Design, 2011, 86, 2585-2588.	1.9	72
8	Numerical assessment of functionally graded tungsten/steel joints for divertor applications. Fusion Engineering and Design, 2011, 86, 220-226.	1.9	69
9	A brief summary of the progress on the EFDA tungsten materials program. Journal of Nuclear Materials, 2013, 442, S173-S180.	2.7	69
10	Microstructure characterization and strengthening mechanisms of oxide dispersion strengthened (ODS) Fe-9%Cr and Fe-14%Cr extruded bars. Journal of Nuclear Materials, 2017, 495, 6-19.	2.7	69
11	Diffusion bonding between W and EUROFER97 using V interlayer. Journal of Nuclear Materials, 2012, 429, 335-340.	2.7	66
12	Superior low-cycle fatigue properties of CoCrNi compared to CoCrFeMnNi. Scripta Materialia, 2021, 194, 113667.	5.2	66
13	High temperature deformation and damage behavior of RAFM steels under low cycle fatigue loading: Experiments and modeling. Fusion Engineering and Design, 2006, 81, 2221-2231.	1.9	59
14	Investigation on the diffusion bonding of tungsten and EUROFER97. Journal of Nuclear Materials, 2011, 417, 524-527.	2.7	59
15	High-dose neutron irradiation embrittlement of RAFM steels. Journal of Nuclear Materials, 2006, 355, 83-88.	2.7	55
16	Fracture behaviour of polycrystalline tungsten. Journal of Nuclear Materials, 2014, 446, 240-245.	2.7	55
17	Assessment of design limits and criteria requirements for Eurofer structures in TBM components. Journal of Nuclear Materials, 2011, 414, 53-68.	2.7	52
18	Microstructural characterization of Eurofer-97 and Eurofer-ODS steels before and after multi-beam ion irradiations at JANNUS Saclay facility. Journal of Nuclear Materials, 2015, 465, 236-244.	2.7	49

#	Article	IF	Citations
19	Study of the deformation and damage mechanisms of a 9Cr-ODS steel: Microstructure evolution and fracture characteristics. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 123-134.	5.6	45
20	Deformation mechanisms of CoCrFeMnNi high-entropy alloy under low-cycle-fatigue loading. Acta Materialia, 2021, 215, 117089.	7.9	44
21	Quantitative TEM analysis of precipitation and grain boundary segregation in neutron irradiated EUROFER 97. Journal of Nuclear Materials, 2014, 454, 323-331.	2.7	43
22	Optimization of solid-state diffusion bonding of Hastelloy C-22 for micro heat exchanger applications by coupling of experiments and simulations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 340-348.	5.6	42
23	Functionally graded vacuum plasma sprayed and magnetron sputtered tungsten/EUROFER97 interlayers for joints in helium-cooled divertor components. Journal of Nuclear Materials, 2013, 436, 29-39.	2.7	42
24	Quantitative characterization of microstructural defects in up to 32dpa neutron irradiated EUROFER97. Journal of Nuclear Materials, 2012, 426, 52-58.	2.7	41
25	Process optimization for diffusion bonding of tungsten with EUROFER97 using a vanadium interlayer. Journal of Nuclear Materials, 2015, 459, 217-224.	2.7	41
26	Embrittlement behavior of neutron irradiated RAFM steels. Journal of Nuclear Materials, 2007, 367-370, 81-85.	2.7	40
27	Thermal stability of electrodeposited LIGA Niâ€“W alloys for high temperature MEMS applications. Microsystem Technologies, 2008, 14, 1531-1536.	2.0	38
28	High-temperature low-cycle fatigue behavior of a 9Cr-ODS steel: Part 1 - pure fatigue, microstructure evolution and damage characteristics. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 207-220.	5.6	38
29	High cycle fatigue and fracture behavior of LIGA Nickel. Scripta Materialia, 2005, 52, 1217-1221.	5.2	37
30	Mechanical characterization and modeling of brazed EUROFER-tungsten-joints. Journal of Nuclear Materials, 2007, 367-370, 1228-1232.	2.7	37
31	High-temperature low cycle fatigue behavior of an equiatomic CoCrFeMnNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139781.	5.6	37
32	High temperature tensile properties and fracture characteristics of bimodal 12Cr-ODS steel. Journal of Nuclear Materials, 2016, 468, 1-8.	2.7	36
33	The European ITER Test Blanket Modules: EUROFER97 material and TBMâ€™s fabrication technologies development and qualification. Fusion Engineering and Design, 2017, 124, 767-773.	1.9	34
34	Choice of a low operating temperature for the DEMO EUROFER97 divertor cassette. Fusion Engineering and Design, 2017, 124, 655-658.	1.9	32
35	Fracture-mechanical properties of neutron irradiated ITER specification tungsten. Journal of Nuclear Materials, 2021, 547, 152761.	2.7	32
36	The influence of tungsten on the thermal stability and mechanical behavior of electrodeposited nickel MEMS structures. Scripta Materialia, 2010, 63, 1141-1144.	5.2	31

#	Article	IF	Citations
37	Numerical assessment of functionally graded tungsten/EUROFER coating system for first wall applications. Fusion Engineering and Design, 2015, 98-99, 1389-1393.	1.9	29
38	Development of Ni-based superalloys for microelectromechanical systems. Scripta Materialia, 2012, 67, 459-462.	5.2	28
39	Modeling of helium bubble nucleation and growth in neutron irradiated boron doped RAFM steels. Journal of Nuclear Materials, 2012, 426, 287-297.	2.7	27
40	Manufacturing and joining technologies for helium cooled divertors. Fusion Engineering and Design, 2014, 89, 913-920.	1.9	27
41	Challenges in the constitutive modeling of the thermo-mechanical deformation and damage behavior of EUROFER 97. Engineering Fracture Mechanics, 2009, 76, 1474-1484.	4.3	26
42	High-temperature low-cycle fatigue behavior of a 9Cr-ODS steel: Part 2 - hold time influence, microstructural evolution and damage characteristics. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 730, 197-206.	5.6	26
43	Embrittlement behaviour of different international low activation alloys after neutron irradiation. Journal of Nuclear Materials, 2001, 295, 16-20.	2.7	25
44	Thermomechanical analysis of diffusion-bonded tungsten/EUROFER97 with a vanadium interlayer. Journal of Nuclear Materials, 2014, 455, 635-639.	2.7	25
45	Microstructural defects in EUROFERÂ97 after different neutron irradiation conditions. Nuclear Materials and Energy, 2016, 9, 471-475.	1.3	25
46	The Effect of Cell and Module Dimensions on Thermomechanical Stress in PV Modules. IEEE Journal of Photovoltaics, 2020, 10, 70-77.	2.5	25
47	Characterization of W/Fe functionally graded materials manufactured by resistance sintering under ultra-high pressure. Fusion Engineering and Design, 2015, 91, 21-24.	1.9	24
48	Vacuum plasma spraying of functionally graded tungsten/EUROFER97 coatings for fusion applications. Fusion Engineering and Design, 2018, 133, 148-156.	1.9	24
49	Development of W-coating with functionally graded W/EUROFER-layers for protection of First-Wall materials. Fusion Engineering and Design, 2018, 128, 58-67.	1.9	23
50	Enabling the measurement of thermomechanical stress in solar cells and PV modules by confocal micro-Raman spectroscopy. Solar Energy Materials and Solar Cells, 2019, 193, 351-360.	6.2	23
51	Characterization and modeling of the ratcheting behavior of the ferriticâ€“martensitic steel P91. Journal of Nuclear Materials, 2016, 472, 227-239.	2.7	22
52	Modeling the cyclic softening and lifetime of ferritic-martensitic steels under creep-fatigue loading. International Journal of Mechanical Sciences, 2018, 136, 460-474.	6.7	22
53	Microstructure and texture in W and W-1wt%La 2 O 3 processed by high-pressure torsion. Scripta Materialia, 2017, 139, 22-25.	5.2	21
54	Creep-fatigue interaction in a bimodal 12Cr-ODS steel. International Journal of Fatigue, 2017, 102, 92-111.	5.7	21

#	Article	IF	Citations
55	Application of an extrapolation method in thermocyclic failure analysis. Computer Methods in Applied Mechanics and Engineering, 2000, 182, 55-71.	6.6	20
56	Modeling the constitutive behavior of RAFM steels under irradiation conditions. Journal of Nuclear Materials, 2011, 417, 1123-1126.	2.7	20
57	Deformation and damage mechanisms of a bimodal 12Cr-ODS steel under high-temperature cyclic loading. International Journal of Fatigue, 2016, 93, 1-17.	5.7	20
58	Study of helium embrittlement in boron doped EUROFER97 steels. Journal of Nuclear Materials, 2009, 386-388, 349-352.	2.7	19
59	Low-cycle fatigue behavior and deformation mechanisms of a dual-phase Al0.5CoCrFeMnNi high-entropy alloy. International Journal of Fatigue, 2022, 163, 107075.	5.7	19
60	The effects of helium on the embrittlement and hardening of boron doped EUROFER97 steels. Fusion Engineering and Design, 2008, 83, 1498-1502.	1.9	18
61	Development of Functionally Graded Tungsten/EUROFER Coating System for First Wall Application. Fusion Science and Technology, 2015, 68, 578-581.	1.1	18
62	TEM study and modeling of bubble formation in dual-beam He + /Fe 3+ ion irradiated EUROFER97. Journal of Nuclear Materials, 2017, 484, 59-67.	2.7	17
63	Review and critical assessment of dislocation loop analyses on EUROFER 97. Nuclear Materials and Energy, 2018, 15, 23-26.	1.3	17
64	A combined microtensile testing and nanoindentation study of the mechanical behavior of nanocrystalline LIGA Niâ€“Fe. International Journal of Materials Research, 2009, 100, 68-75.	0.3	16
65	High-temperature low-cycle fatigue behavior of novel austenitic ODS steels. International Journal of Fatigue, 2016, 93, 194-200.	5.7	16
66	Selective Laser Sintering as Manufacturing Process for the Realization of Complex Nuclear Fusion and High Heat Flux Components. Fusion Science and Technology, 2017, 72, 667-672.	1.1	16
67	Embrittlement behaviour of low-activation alloys with reduced boron content after neutron irradiation. Journal of Nuclear Materials, 2003, 321, 135-140.	2.7	15
68	Optimization of the EUROFER uniaxial diffusion weld. Journal of Nuclear Materials, 2007, 367-370, 1203-1207.	2.7	15
69	Mechanical characterization and modeling of brazed tungsten and Cuâ€“Crâ€“Zr alloy using stress relief interlayers. Journal of Nuclear Materials, 2014, 455, 130-133.	2.7	15
70	Creep-fatigue design rules for cyclic softening steels. International Journal of Fatigue, 2019, 118, 98-103.	5.7	15
71	Effective and back stresses evolution upon cycling a high-entropy alloy. Materials Research Letters, 2022, 10, 369-376.	8.7	15
72	High temperature tensile properties of oxide dispersion strengthened T91 and their correlation with microstructural evolution. Materials Science and Technology, 2014, 30, 1691-1696.	1.6	14

#	Article	IF	Citations
73	Dynamic finite element analysis of a micro lobe pump. Microsystem Technologies, 2003, 9, 465-469.	2.0	13
74	High-temperature low-cycle fatigue behavior and microstructural evolution of an ODS steel based on conventional T91. International Journal of Fatigue, 2017, 100, 50-57.	5.7	13
75	Thermomechanical stress analysis of PV module production processes by Raman spectroscopy and FEM simulation. Energy Procedia, 2017, 124, 464-469.	1.8	13
76	Direct observation of dislocation loops shrinkage upon annealing neutron-irradiated Feâ€“9Cr alloy. Journal of Nuclear Materials, 2020, 542, 152401.	2.7	13
77	THE INFLUENCE OF THE HARDENING STATE ON TIME DEPENDENT DAMAGE AND ITS CONSIDERATION IN A UNIFIED DAMAGE MODEL. Fatigue and Fracture of Engineering Materials and Structures, 1996, 19, 1143-1151.	3.4	12
78	Failure behaviour of EUROFER 97 in the low-cycle fatigue region under multi-step loading. International Journal of Fatigue, 2008, 30, 568-573.	5.7	12
79	Resistance sintering under ultra high pressure of tungsten/EUROFER97 composites. Journal of Nuclear Materials, 2011, 414, 19-22.	2.7	12
80	Structural Design Criteria Development Needs for a European DEMO. Fusion Science and Technology, 2014, 66, 18-27.	1.1	12
81	Towards improved <scp>ODS</scp> steels: A comparative highâ€temperature lowâ€cycle fatigue study. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 2128-2140.	3.4	12
82	Status of the EU DEMO breeding blanket manufacturing R&D activities. Fusion Engineering and Design, 2020, 152, 111420.	1.9	12
83	Post-irradiation annealing of neutron-irradiated EUROFER97. Journal of Nuclear Materials, 2021, 548, 152863.	2.7	12
84	Multiscale modelling for fusion and fission materials: The M4F project. Nuclear Materials and Energy, 2021, 29, 101051.	1.3	12
85	Development progress of coating first wall components with functionally graded W/EUROFER layers on laboratory scale. Nuclear Fusion, 2020, 60, 126004.	3.5	12
86	Near-threshold fatigue crack behaviour in EUROFER 97 at different temperatures. Journal of Nuclear Materials, 2006, 353, 101-108.	2.7	10
87	Considering brittleness of tungsten in failure analysis of helium-cooled divertor components with functionally graded tungsten/EUROFER97 joints. Engineering Fracture Mechanics, 2013, 100, 63-75.	4.3	10
88	Determination of interface toughness of functionally graded tungsten/EUROFER multilayer at 550â€Â°C by analytical and experimental methods. Engineering Fracture Mechanics, 2018, 202, 487-499.	4.3	10
89	Investigation of microstructure defects in EUROFER97 under He+/Fe3+ dual ion beam irradiation. Nuclear Materials and Energy, 2018, 15, 148-153.	1.3	10
90	Temperature-dependent cyclic deformation behavior of CoCrFeMnNi high-entropy alloy. International Journal of Fatigue, 2022, 160, 106863.	5.7	10

#	Article	IF	Citations
91	Elevated-temperature cyclic deformation mechanisms of CoCrNi in comparison to CoCrFeMnNi. Scripta Materialia, 2022, 220, 114926.	5.2	10
92	Diffusion bonding of the oxide dispersion strengthened steel PM2000. Journal of Nuclear Materials, 2013, 443, 78-83.	2.7	9
93	Fabrication of Tungsten-Vanadium Hybrid Material with Sufficient Toughness for High-Temperature Applications by Diffusion Bonding. Fusion Science and Technology, 2014, 66, 315-321.	1.1	9
94	Approach for Jâ€“R curve determination based on sub-size specimens using a triaxiality dependent cohesive zone model on a (ferriticâ€“martensitic) steel. Engineering Fracture Mechanics, 2015, 144, 222-237.	4.3	9
95	Thermo-mechanical response of FG tungsten/EUROFER multilayer under high thermal loads. Journal of Nuclear Materials, 2019, 519, 137-144.	2.7	9
96	Assessment of the chemical compatibility between EUROFER and ceramic breeder with respect to fatigue lifetime. Fusion Engineering and Design, 2020, 157, 111732.	1.9	9
97	Silicon solar cellâ€“integrated stress and temperature sensors for photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2020, 28, 717-724.	8.1	9
98	Prediction of fracture toughness based on experiments with sub-size specimens in the brittle and ductile regimes. Journal of Nuclear Materials, 2016, 472, 178-185.	2.7	8
99	Microstructural evolution, textural evolution and thermal stabilities of W and W â€“ 1Âwt% La2O3 subjected to high-pressure torsion. Materialia, 2018, 2, 46-52.	2.7	8
100	Effect of irradiation temperature on the fracture-mechanical behaviour of tungsten irradiated to 1 dpa. Journal of Nuclear Materials, 2021, 556, 153200.	2.7	8
101	Effects of hold time and neutron irradiation on the low-cycle fatigue behaviour of type 316-CL and their consideration in a damage model. Nuclear Engineering and Design, 2002, 213, 111-117.	1.7	7
102	Deformation and damage of RAFM steels under thermo-mechanical loading: A challenge for constitutive equations. Journal of Nuclear Materials, 2007, 367-370, 550-555.	2.7	7
103	Reduced softening of EUROFER 97 under thermomechanical and multiaxial fatigue loading and its impact on the design rules. Journal of Nuclear Materials, 2009, 386-388, 911-914.	2.7	7
104	Modeling the influence of high dose irradiation on the deformation and damage behavior of RAFM steels under low cycle fatigue conditions. Journal of Nuclear Materials, 2009, 389, 432-435.	2.7	7
105	Thermomechanical characterization of joints for blanket and divertor application processed by electrochemical plating. Fusion Engineering and Design, 2016, 109-111, 1280-1285.	1.9	7
106	Evolution mechanisms of irradiation-induced helium bubbles, C15 clusters and dislocation loops in ferrite/martensite steels: A cluster dynamics modeling study. Journal of Nuclear Materials, 2021, 557, 153212.	2.7	7
107	Non-linear failure analysis of HCPB Test Blanket Module. Fusion Engineering and Design, 2012, 87, 1085-1090.	1.9	6
108	Approach for Determining Fracture Mechanical Properties from Tests on Small Size Specimens at Room Temperature. , 2014, 3, 434-439.		6

#	Article	IF	Citations
109	High-temperature low-cycle fatigue behavior and microstructural evolution of an improved austenitic ODS steel. Journal of Materials Research, 2018, 33, 1814-1821.	2.6	6
110	Thermal fatigue behavior of functionally graded W/EUROFER-layer systems using a new test apparatus. Fusion Engineering and Design, 2020, 154, 111550.	1.9	6
111	Unified modelling of time dependent damage taking into account an explicit dependency on backstress. International Journal of Fatigue, 1997, 19, 195-200.	5.7	5
112	Small fracture toughness specimen for post-irradiation experiments. Journal of Nuclear Materials, 2007, 367-370, 599-602.	2.7	5
113	Verification of design rules for EUROFER under TBM operating conditions. Journal of Nuclear Materials, 2007, 367-370, 1404-1409.	2.7	5
114	Manufacturing experiment on a cooling plate for a blanket breeder unit. Fusion Engineering and Design, 2008, 83, 1263-1267.	1.9	5
115	Low cycle fatigue properties of reduced activation ferritic/martensitic steels after high-dose neutron irradiation. Nuclear Fusion, 2011, 51, 083012.	3.5	5
116	Technology Developments at KIT Towards a Magnetic Confinement Fusion Power Plant. Fusion Science and Technology, 2012, 61, 64-69.	1.1	5
117	Creep fatigue assessment for EUROFER components. Fusion Engineering and Design, 2015, 100, 536-540.	1.9	5
118	Simulation of anisotropic fracture behaviour of polycrystalline round blank tungsten using cohesive zone model. Journal of Nuclear Materials, 2018, 502, 213-219.	2.7	5
119	Integrated modeling of helium-vacancy clustering in Eurofer97 steel upon He+/Fe3+ dual-beam irradiation. Journal of Nuclear Materials, 2021, 547, 152822.	2.7	5
120	W/EUROFER functionally graded coatings for plasma facing components: Technology transfer to industry and upscaling. Fusion Engineering and Design, 2021, 173, 112940.	1.9	5
121	Relative population of 1/2<111> and <100> interstitial loops in alpha-Fe under irradiation: Effects of C15 cluster stability and loop one-dimensional movement. Acta Materialia, 2022, 233, 117983.	7.9	5
122	Effect of temperature on the neutron irradiation-induced cavities in tungsten. Philosophical Magazine, 2022, 102, 1665-1683.	1.6	5
123	Analysing the Failure Behaviour of Thermal Barrier Coatings Using the Finite Element Method. Ceramic Engineering and Science Proceedings, 0, , 203-211.	0.1	4
124	Non-linear failure analysis of HCPB blanket for DEMO taking into account high dose irradiation. Fusion Engineering and Design, 2014, 89, 1664-1668.	1.9	4
125	ANSYS Creep-Fatigue Assessment tool for EUROFER97 components. Nuclear Materials and Energy, 2016, 9, 535-538.	1.3	4
126	Comparative small angle neutron scattering (SANS) study of Eurofer97 steel neutron irradiated in mixed (HFR) and fast spectra (BOR60) reactors. Nuclear Materials and Energy, 2016, 9, 189-193.	1.3	4

#	Article	IF	Citations
127	Eurofer97 Creep-Fatigue assessment tool for ANSYS APDL and workbench. Nuclear Materials and Energy, 2018, 15, 85-91.	1.3	4
128	Microstructure characterization of a novel austenitic ODS steel by transmission electron microscopy. Materialia, 2019, 5, 100176.	2.7	4
129	Ratcheting and fatigue behavior of Eurofer97 at high temperature, part 1: Experiment. Fusion Engineering and Design, 2020, 150, 111407.	1.9	4
130	Creep Lifetime Under Constant Load and Constant Stress: Theory and Experiment. Journal of Testing and Evaluation, 1996, 24, 212-222.	0.7	4
131	The Role of Temperature Rate Terms in Viscoplastic Modelling: Theory and Experiments. , 2000, , 103-115.		4
132	Dislocation loop coarsening and shape evolution upon annealing neutron-irradiated RAFM steel. Journal of Nuclear Materials, 2022, 558, 153366.	2.7	4
133	A new differential equations-based model for nonlinear history-dependent magnetic behaviour. Journal of Magnetism and Magnetic Materials, 2000, 212, 267-272.	2.3	3
134	Application of a model of nonlinear history-dependent magnetic behavior for inductance estimation of a microinductor. Journal of Magnetism and Magnetic Materials, 2001, 234, 556-566.	2.3	3
135	Simulation of solenoidal magnetic HF inductance with genetic algorithm. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1206-1209.	2.3	3
136	Microcrack propagation under non-proportional multiaxial alternating loading. European Structural Integrity Society, 2003, 31, 441-460.	0.1	3
137	Multiaxial fatigue behavior of EUROFER 97. Journal of Nuclear Materials, 2007, 367-370, 633-636.	2.7	3
138	Use of the failure assessment diagram to deduce ductile fracture toughness of the RAFM steel EUROFER97. International Journal of Pressure Vessels and Piping, 2009, 86, 345-350.	2.6	3
139	Mockups of blanket cooling plates manufactured in different diffusion welding setups. Journal of Nuclear Materials, 2009, 386-388, 437-440.	2.7	3
140	A numerical study of the size effect in fracture mechanical bending tests with the cohesive zone method. Journal of Nuclear Materials, 2009, 386-388, 971-973.	2.7	3
141	Quantitative TEM Investigations on EUROFER 97 Irradiated up to 32 Dpa. Advances in Science and Technology, 0, , .	0.2	3
142	Ratcheting behavior of Eurofer97 at 550ÂÂ°C. Nuclear Materials and Energy, 2018, 15, 97-102.	1.3	3
143	Non-linear assessment of critical failure modes in the first wall of the European TBM. Fusion Engineering and Design, 2018, 128, 223-230.	1.9	3
144	Manufacturing influences on microstructure and fracture mechanical properties of polycrystalline tungsten. Nuclear Materials and Energy, 2019, 21, 100591.	1.3	3

#	Article	IF	Citations
145	Ratcheting and fatigue behavior of Eurofer97 at high temperature, part 2: modeling. Fusion Engineering and Design, 2020, 152, 111426.	1.9	3
146	Parameterization on formation free energy of dislocation loops up to 1100ÂK in bcc iron. Journal of Nuclear Materials, 2022, 559, 153409.	2.7	3
147	Nanoscale insights into the corrosion of EUROFER by lithium ceramics. Corrosion Science, 2022, 199, 110190.	6.6	3
148	Neutron Irradiation Resistance of RAFM Steels. Materials Research Society Symposia Proceedings, 2006, 981, 1.	0.1	2
149	Assessment of defects in EUROFER 97 first wall/blanket structures taking into account its viscoplastic behavior. Fusion Engineering and Design, 2010, 85, 2065-2069.	1.9	2
150	Crack Assessment in Tbc Systems Using Fem and Taking Mode Mixity Into Account. Ceramic Engineering and Science Proceedings, 0, , 397-406.	0.1	2
151	In-situ TEM investigations of dislocation loop annealing kinetics in neutron-irradiated 9%Cr RAFM steel. Journal of Nuclear Materials, 2022, 558, 153365.	2.7	2
152	Experimental Investigation of EU-DEMO Breeding Blanket First Wall Mock-Ups in Support of the Manufacturing and Material Development Programmes. Energies, 2021, 14, 7580.	3.1	2
153	Recent studies to the impact of a ceramic breeder environment on the mechanical properties of EUROFER97 under operating conditions. Journal of Nuclear Materials, 2022, 564, 153677.	2.7	2
154	Modelling of the influence of damage on the deformation behaviour by a self-consistent embedded cell model. Computational Materials Science, 1998, 12, 64-72.	3.0	1
155	Evaluation of Material Design Limits for TBM Applications. , 2005, , .		1
156	Validation of R5 assessment procedure for ITER test blanket module by finite element analysis. Fusion Engineering and Design, 2010, 85, 215-221.	1.9	1
157	Impact of pulsed operation on lifetime of DEMO blanket. , 2013, , .		1
158	Stress Mapping by Confocal Raman Spectroscopy on Solar Cells and Modules. , 2018, , .		1
159	Microstructure-specific hardening of ferritic-martensitic steels pre and post 15 dpa neutron irradiation at 330ÂÂ°C: A dislocation dynamics study. Nuclear Materials and Energy, 2021, 26, 100814.	1.3	1
160	Creep Properties of 9Cr and 14Cr ODS Tubes Tested by Inner Gas Pressure. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3541.	2.2	1
161	Implementation of a Viscoplastic Constitutive Model Coupled with Damage in the FE-Code ABAQUS. , 1994, , 611-620.		1
162	Modeling and TEM Investigation of Helium Bubble Growth in RAFM Steels Under Neutron Irradiation. , 2013, , 123-142.		1

#	Article	IF	Citations
163	Probabilistic analysis of cleavage fracture in commercial polycrystalline tungsten. Journal of Nuclear Materials, 2022, 565, 153757.	2.7	1
164	Modelling of fatigue lifetime under non-proportional multiaxial alternating loading. Fatigue and Fracture of Engineering Materials and Structures, 2007, 30, 311-322.	3.4	0
165	Modeling and experimental evaluation of the diffusion bonding of the oxide dispersion strengthened steel PM2000. Journal of Nuclear Materials, 2015, 465, 337-342.	2.7	0
166	Simplified approach for ductile fracture mechanics SSTT and its application to Eurofer97. Nuclear Materials and Energy, 2021, 26, 100799.	1.3	0
167	A Model for Damage and Lifetime Prediction Taking into Account the Backstress. , 1992, , 721-726.		0
168	Numerical and experimental investigations of temperature-rate terms in modelling the inelastic material behaviour. , 1998, , 641-646.		0